

Claims

- 1** - Integrated circuit chip comprising :
- at least one functional or IP core
 - testing means for testing the functional or IP core,
 - 5 ▪ communication means for connecting the testing means to an external communication network.
- 2** - Integrated circuit chip according to claim 1, comprising :
- at least two functional or IP cores
 - for each functional or IP core, testing means for testing said functional or IP core,
 - 10 ▪ communication means for connecting the testing means of each functional or IP core to the external communication network and for enabling at least an individual access to each testing means of each functional or IP core from the external communication network.
- 15 **3** - Integrated circuit chip according to claim 1 or 2, wherein the testing means of each functional or IP core comprise a wrapper in which the functional or IP core is embedded.
- 20 **4** - Integrated circuit chip according to claim 3, wherein the wrapper of the testing means of each functional or IP core implements the IEEE P1500 standard architecture.
- 5** - Integrated circuit chip according to any of claims 1 to 4, wherein the communication means allow a remote control of the testing means via the communication network.
- 25 **6** - Integrated circuit chip according to any of claims 1 to 5, wherein the communication means comprise a test bus (**TAM**) connected to the testing means and a proxy agent (**PA**) connected to the test bus and to the communication network.
- 7** - Integrated circuit chip according to claim 6, wherein the proxy agent (**PA**) implements the SMNP protocol:

8 - Integrated circuit chip according to claim 4 and 7 wherein the proxy agent (**PA**) comprises an SNMP processor which translates the information between SMNP and P1500 protocols.

5 **9** - Integrated circuit chip according to any of claims 1 to 8 wherein the communication means comprise at least one TCP/IP network interface circuit.

10 - System for testing at least one functional or IP core embedded in an integrated circuit chip comprising:

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 - an integrated circuit chip according to any of claims 1 to 9,
 - a communication network connected to the communication means of the integrated circuit chip,
 - a network management station (**ATE**) connected to the communication network and able to communicate with the testing means of the integrated circuit chip via the communication network and the communication means of the integrated circuit chip.

15 **11** - System for testing at least one functional or IP core embedded in a integrated circuit chip according to claim 10 wherein the communication network is a TCP/IP network.

20 **12** - System for testing at least one functional or IP core embedded in a integrated circuit chip according to claim 10 or 11, wherein the network management station (**ATE**) performs an automatic test of a functional or IP core of the integrated circuit chip.